Remarks

The Official Action of January 11, 2005 has been carefully considered. The changes presented herewith, taken with the following remarks, are believed sufficient to place the present application in condition for allowance. Reconsideration is respectfully requested.

Claims 1-12, 14, and 16-24 remain in the present application and are believed to be in condition for allowance. Claims 13 and 15 have been canceled. Claims 1, 12, 14 and 24 have been amended. Support for these claim amendments can be found within the specification and figures.

Applicant mailed an Information Disclosure Statement and Form PTO-1449 to the Patent Office on August 18, 2004. The Examiner enclosed an initialed copy of the Form along with the recent Official Action, although one reference (US2004/0135373 A1), which Applicant believes to have been properly listed on the Form, was crossed off by the Examiner on the initialed Form. Applicant hereby respectfully requests that the Examiner consider this reference and provide Applicants with a copy of the Form upon which this reference has been initialed. In the alternative, Applicant respectfully requests an explanation as to why this reference was not considered by the Examiner, and what Applicant must do to have this reference considered. Applicant appreciates the Examiner's assistance in this regard.

Claims 1-3, 5, 11-14, and 20-24 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,964,265 to Young, and claims 4, 6-10, and 15-19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Young in view of U.S. Patent No. 5,794,422 to Reimers et al.. Applicant submits that each of the walk-behind mowers defined by claims 1-11 and 24, the mowers of claims 12, 14 and 16-19, and the power equipment apparatuses of claims 20-23 are not anticipated by Young, and furthermore are nonobvious over and are patentably distinguishable from Young, either alone or in any arguable combination with Reimers et al. Accordingly, these rejections are traversed and reconsideration is respectfully requested.

Young relates to a lawn mower that is remotely controlled and self-propelled. The lawn mower is propelled by battery powered electric motors that drive a set of wheels that are fixed in relation to a frame. Steering is accomplished through a belt and pulley system generally aligned with the forwardly mounted steering wheels. A battery powered electric motor rotates a center pulley that in turn rotates pulleys for positioning the steering wheels in relation to the frame. Direction and speed of the mower are controllable with a two channel radio.

Reimers et al. relates to an electric drive riding greens mower. The mower includes a frame which is supported for movement upon a plurality of ground engaging wheels and upon which are supported a motor generator set and a plurality of reel lawn mowers. An electric motor provides driving torque to enable movement of the mower between and over golf course greens or other surfaces to be mowed. Electric motors provide driving torque for each of the reel lawn mowers. The motor generator set provides electrical energy for driving the electric motors, including the primary mover and the electrical motors for the reel type lawn mowers. The motor generator set includes an internal combustion motor which provides the mechanical energy to an electric generator which provides electrical energy in response to the received mechanical energy.

In contrast with the individual and/or combined teachings of Young and Reimers et al., the present invention as defined by independent claim 1, for example, relates to a walk-behind mower comprising a deck, a handle fastened to the deck and a plurality of wheels associated with the deck. A first electric motor is operatively coupled with at least one of said wheels and is configured to rotate the coupled wheel(s). An operator interface is attached to the handle for receiving input from an operator. An internal combustion engine is associated with the deck and has a drive shaft. A generator is operatively coupled to the engine and is configured to generate electrical power for use in operating the first electric motor. A motion controller is configured to receive electrical power from the generator and

for selectively directing the electrical power to the first electric motor in response to input at the operator interface.

The present invention as defined by independent claim 12, for example, relates to a mower having a hybrid propulsion system. The mower comprises a first drive wheel, a second drive wheel, a first electric motor operatively coupled with the first drive wheel and configured to rotate the first drive wheel, and a second electric motor operatively coupled with the second drive wheel and configured to rotate the second drive wheel. An operator interface is configured to provide an operator with an ability to direct the operation of the first and second electric motors. The mower also includes an internal combustion engine and a generator operatively coupled to the engine. The generator is at least partially integral with the engine and is configured to generate electrical power for use in operating the first and second electric motors. A motion controller is configured to receive electrical power from the generator and for independently operating each of the first and second electric motors in response to signals from the operator interface. The independent operation of the first and second electric motors facilitates steering of the mower.

The present invention as defined by independent claim 20, for example, relates to a power equipment apparatus having a hybrid propulsion system and comprising a driven element, an actuator operatively coupled to the driven element, an operator interface for receiving input from an operator, and an internal combustion engine. The apparatus further comprises a generator having a rotor and a coil assembly. The rotor is rotationally movable with respect to the coil assembly. The rotor and coil assembly are at least partially integrated with the engine such that the rotational movement of the rotor provides sufficient inertia in the engine to facilitate ongoing engine operation. The generator is configured to generate electrical power for use in operating the actuator. A motion controller is configured to receive electrical power from the generator and for selectively directing this electrical power to the actuator in response to input at the operator interface.

The present invention as defined by independent claim 24, for example, relates to a walk-behind mower comprising a handle fastened to a deck and supporting a drive lever. The mower also includes a plurality of wheels associated with the deck. At least one of the wheels is operatively coupled to a single electric motor that is configured to rotate the coupled wheel(s). An internal combustion engine is associated with the deck and has a drive shaft. A mowing blade is mechanically coupled to the drive shaft. A generator is operatively coupled to the engine. The generator is at least partially integral with the engine and is configured to generate electrical power. A motion controller is configured to receive electrical power from the generator and to selectively facilitate provision of this electrical power to the electric motor in response to engagement by an operator of the drive lever.

Young fails to teach each of the elements of independent claims 1, 12, 20 and 24. For example, with respect to the rejection of claims 1 and 24 under 35 U.S.C. §102(b), the Official Action contends that a handle is inherently present in that Young discloses a commercially available four-wheel rotary mower. The specification of Young actually says "the remotely controlled lawn mower of the present invention may include a commercially available four-wheel rotary lawn mower frame 10 and engine 15 for powering a blade 20". Therefore, Young does not disclose incorporation of a commercially available four-wheel rotary lawn mower (or all aspects thereof), but rather only apparently contemplates inclusion of the frame and engine, and perhaps the blade, of a commercially available four-wheel rotary lawnmower. Young thus does not disclose an operator interface attached to a handle for receiving input from an operator, as recited in claim 1, or a handle fastened to a deck and supporting a drive lever, as recited by claim 24. Furthermore, as Young is directed to a remotely controlled lawn mower, Young actually teaches away from such components. In fact, although Young does describe a detachable handle "for pushing or pulling the mower" (column 3, lines 67-68), the only operator interface disclosed by Young is provided as a multi-channel transmitter which is separate from the handle. For these reasons, the rejection under 35 U.S.C. §102(b) of independent claims 1 and 24, and those claims dependent

thereon, is unsupported by Young and should be withdrawn. Reconsideration is respectfully requested.

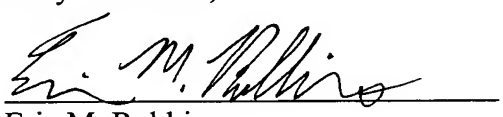
Young also fails to teach features of the other claims. For example, the generator recited by independent claim 20 and dependent claim 3 has a rotor and coil assembly which are at least partially integrated with the engine such that the rotational movement of the rotor provides sufficient inertia in the engine to facilitate ongoing engine operation. Also, independent claims 12 and 24 recite a generator that is at least partially integral with an engine, and dependent claim 2 recites a generator that is integral with the engine. As discussed in the specification, by integrating a generator with an engine, a compact and light-weight engine/generator arrangement can be achieved at a significantly reduced cost as compared to the combination of separate engine and generator components or assemblies. Power equipment incorporating an integral engine/generator arrangement can generally require fewer components (or at least fewer redundancies) and might resultantly be more compact and/or lighter than embodiments incorporating a separate engine and generator. Young fails to disclose the engine/generator configurations recited in independent claims 12, 20 and 24, and dependent claims 2 and 3. Accordingly, the rejection of these claims under 35 U.S.C. §102(b) is unsupported by Young and, for this additional reason, should be withdrawn. Reconsideration is respectfully requested.

The Official Action contends that generators inherently contain a rotor and coil assembly whereby the rotor spins inside the coil, and that because the assembly is at least partially integral with the engine, and because a spinning rotor contains inertia, the generator of Young facilitates ongoing engine operations. Applicant disagrees. In particular, Young does not disclose a generator that is at least partially integral with an engine, but rather is silent as to the particular relationship of the generator with the engine. A person skilled in the art, upon reading Young, would contemplate the conventional arrangement in which a generator is provided separately from an engine (e.g., being belt-driven by the engine's crankshaft). In such a configuration, the engine can still operate even if the generator (and its

added inertia) were disconnected from the engine. In other words, such an engine itself incorporates sufficient inertia to facilitate its ongoing operation even without attachment of a generator.

Young accordingly fails to teach the present invention as respectively defined by independent claims 1, 12, 20 and 24. The rejection under 35 U.S.C. §102(b) is therefore inappropriate and should be removed. The dependent claims are allowable as depending directly or indirectly from allowable independent claims, as well as for additional reasons, only some of which are discussed herein. For these reasons and because Reimers et al. does not resolve the deficiencies of Young, the rejection under 35 U.S.C. §103(a) is not addressed in further detail herein. Accordingly, it is believed that the rejections are overcome and that claims 1-12, 14, and 16-24 are in condition for allowance. Applicants respectfully request reconsideration and early allowance of this application.

Respectfully submitted,

By 

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